

in the Postgraduate Department in the last two numbers of the OFFICIAL JOURNAL.\*

During recent months the medical profession has been giving increasing attention to the many problems in preventive and curative medicine which have been rapidly coming to the front in communities where massive activities in wartime industry are now in operation. The Institutes on Wartime Industrial Health were brought into being through joint action of the Western Association of Industrial Physicians and Surgeons, California State Board of Public Health and the California Medical Association, in an effort to urge physicians, both in industrial and general practice, to take greater interest in some of the newer measures and procedures which industrial establishments have found necessary, through experience, to observe, if the health of employees and the efficiency in their output are to be maintained. It cannot be too often stated that now, since we are at war, every hour lost, through preventable illness or injury of men and women at work in war plants, becomes a factor that must be reckoned with, if the lives of soldiers at the front are to be properly conserved. The articles which appear in this number will permit readers to orient themselves concerning some of the problems which are met with in factories and other industrial workshops.

Mention may also be called to the example of coöperative endeavor in the promotion of the recent Institutes. Each of the three bodies concerned with their presentation gave valuable aid. In due course announcement will be made of other meetings to be held in the near future.

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**Proposed "Section on Preventive and Industrial Medicine and Public Health".**—In informal table discussions at several of the recent meetings, it was suggested that the C. M. A. Section on Industrial Medicine and Surgery might wish to emulate the example set by the former A. M. A. Section on Industrial Medicine, which extended the scope of its work, taking on a new title, namely, "Section on Preventive and Industrial Medicine and Public Health." Modern-day industrial medicine trenches in large degree into the domain of preventive medicine, as do public health activities. As is well known, in recent years, an increasing number of physicians have been taking up public health as their major-, or life-work, and it is important that these colleagues who are in public life shall be adequately recognized and welcomed in organized medicine.

In the Postgraduate Department of the current issue appears the program of the Health Officers Department of the League of California Cities. That program reveals topics which are of interest and importance to all physicians, and also lists the names of many colleagues who have had close affiliation with the California Medical Association. Those ties of understanding and coöperation must be continued—how better, then, than through the proposed extension of work of one of

C. M. A.'s twelve scientific sections? At the annual sessions, it would not be difficult to arrange the programs to give ample opportunity for portrayal of matters of mutual interest.

Members of the C. M. A. Section on Industrial Medicine and Surgery have stated that they will ask their group to request the House of Delegates at the Del Monte meeting in May, 1943, to extend the scope, and change the name of their division, making it conform with that of the similar section in the American Medical Association. The suggestion is worthy of serious thought.

### MEDICAL JOURNALS FOR MILITARY COLLEAGUES

**An Obligation to Physicians in Camps of the Armed Forces.**—On pages 169 and 201 of last month's issue, a plan was outlined through which, with proper coöperation by physicians who are still in civilian practice, it will be possible to send forward every month to hospital camps in California, publications through which colleagues who are stationed at the various fields, will be able to keep somewhat in touch with current medical literature. As then stated, there is a larger number of such California camps than is generally appreciated, and at some of these practically no library facilities are yet in operation.

Most of our colleagues who have entered the services did so with such abruptness that arrangements for transmittal of medical publications were overlooked or could not be made. Moreover, the journals to which they had subscribed, under the second class postal regulations, cannot be forwarded from their homes to their stations except with extra postage.

The California Medical Association, through its Postgraduate Committee, is making an effort to help solve this need, and in the work is being generously aided by the staffs of the three medical libraries in California: the U. C., Stanford, and Los Angeles.

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**How Physicians in Civilian Practice Can Aid.**—Physicians in civilian practice are requested to scan, as promptly as convenient, the journals to which they subscribe, and then deposit, mail or ship them to one of the three libraries, or to the C. M. A. Postgraduate Committee, 450 Sutter, San Francisco, which ever place may be found the most convenient. The needs of our military fellows may be appreciated if we will but try to visualize the situations which arise, when colleagues are suddenly cut off from the routine of past professional practice, to be transposed to places where the duties of the day are altogether different, and where opportunities for professional or other reading may be greatly limited.

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**Places to Which Your Journals May be Sent.**—For convenience of readers, some informative paragraphs from a recent letter, follow:

"The Postgraduate Committee of the California Medical Association has taken over this work and will be glad

\* In this issue, see page 259.

to render all possible aid in collecting and forwarding medical publications that may be left with county medical society officers, or with hospital staff executives.

"If it is not convenient for you to place with, or forward to the University of California, Stanford or Los Angeles County Medical Libraries, journals that have been collected, the same may be forwarded, via 'Railway Express Agency,' collect, addressed to the C.M.A. Postgraduate Committee, Room 2004, 450 Sutter, San Francisco. The Committee will then be happy to carry on from that point, as regards distribution to suitable military hospital stations.

"Perusal of the editorial comment on this subject in the September issue of CALIFORNIA AND WESTERN MEDICINE will acquaint you with details of the plan. This letter is written to bring home to you the importance and urgency of early coöperation.

"The hope is also expressed that an attempt will be made by your respective officers, or a special volunteer or other committee appointed for the task, to carry on this work from month to month, so that the supply of medical literature may regularly go forward.

"Thanking you for your coöperation,

"THE CALIFORNIA MEDICAL ASSOCIATION  
COMMITTEE OF POSTGRADUATE ACTIVITIES."

"The addresses of the three libraries follow:

U. C. Medical Library, the Medical Center, Third and Parnassus, San Francisco, California.

Lane Medical Library, Clay and Webster Streets, San Francisco, California (Stanford).

Los Angeles County Medical Library, 634 South Westlake, Los Angeles, California.

If more convenient, you can send journals, via 'Railway Express Agency,' collect, to: C.M.A. Postgraduate Committee, Room 2004, 450 Sutter Street, San Francisco, California."

No apology is made for emphasizing again this plan of a procedure of service that will be sure of appreciation by physicians who are already in the armed forces. Their needs and their contentment, if we can somewhat aid in supplying such, should be ample compensation for those of us who are still at home.

Lend a hand!

## EDITORIAL COMMENT †

### ANAEROBIC BACTERIA IN PYORRHEA ALVEOLARIS

An important contribution to the bacteriology of suppurative periodontitis is currently reported by Hemmens and Harrison<sup>1</sup> of the Department of Bacteriology, University of Chicago.

During the opening decade of the present century dentists almost invariably assumed that "alveolar pyorrhea" is a single clinical entity with one specific microbic cause. Bacteriologists of that period, however, were unable to confirm this belief. Goadby,<sup>2</sup> for example, who studied smears and aerobic cultures from 100 cases, was unable to associate the disease with any one bacterial type. On the basis of opsonic tests he concluded that periodontitis is a non-specific infection with

normal mouth bacteria, due to an insufficient production of specific antibodies. Bertrand and Valodier<sup>3</sup> postulated a nutritional deficiency as the underlying cause of this inadequate antibody production. On the basis of these theories a large number of dentists employed autogenous vaccines or vaccines made from normal mouth flora, but with disappointing results.

On account of this failure, the theory of immunological deficiency was quite generally discredited, and renewed attempts were made to find the presumptive specific etiological factor. Among the organisms emphasized by most investigators have been staphylococci, either acting alone or in association with streptococci, or with fusospirochetes. Amebas acting in symbiosis with normal mouth bacteria led to the hope that emetin might be a specific cure. It was later evident,<sup>4</sup> however, that these protozoa lack invasive power, are never found in living periodontal tissues, and probably act merely as non-pathogenic scavengers.

More recent investigators have called attention to the incompleteness of the experimental evidence thus far accumulated. Almost all of the earlier investigators limited their tests to the simpler aerobic techniques, leaving a large group of anaerobic microorganisms not yet adequately investigated. Hemmens and Harrison attempted to supply these missing data. They made parallel study of the anaerobic flora of healthy gingival crevices and suppurating periodontal pockets, with tests of pathogenicity by animal inoculations.

Eight different groups of obligate or facultative anaerobes were isolated from both exudates and normal gingival surfaces. The two floras differed only quantitatively from each other. Thus spirochetes were readily demonstrated in 100 per cent of all exudates, but in only 61 per cent of the normal cases. *M. gazogenes* was more often present on normal surfaces than in pus pockets. *Fusiformis nucleatus* was found in equal number in both cases. The conclusion was drawn that the anaerobic flora of the pus pocket is the same as that of the normal gingivae, there being quantitative difference in the relative percentages in the mixed flora. Inoculation of mice with pure cultures of these microorganisms or pure culture inoculation beneath the gingival mucosa of normal monkeys gave no evidence of individual pathogenicity. Even in monkeys suffering from "vitamin M deficiency,"<sup>5</sup> only a transient gingival inflammation was produced, which healed in about 4 days. No differences were demonstrable between the normal and suppurative floras by specific agglutination tests.

Since no one anaerobic species seemed to be the specific etiological factor it seemed probable that a symbiotic relationship existed that might be the essential pathogenic factor. Such associations are well known in other diseases, such as in Vincent's angina<sup>6</sup> and lung abscess.<sup>7</sup> In order to test this possibility periodontal pus diluted with broth or ascitic fluid was injected subcutaneously, intratesticularly, intraperitoneally, or intranasally into normal rabbits or mice. Small well localized abscesses developed in a few of these animals,

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.